

WPI Acc No: 1995-039401/199506

XRAM Acc No: C95-017464

filters for cigarettes - contg. oxide(s) of calcium, manganese and iron
and zeolite(s) or perlite(s)

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Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
HU 66715	T	19941228	HU 911380	A	19910425	199506 B

Priority Applications (No Type Date): HU 911380 A 19910425

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
HU 66715	T		A24D-003/00	

Abstract (Basic): HU 66715 T

A reaction sequence represented by:

$\text{CaO} + \text{H}_2\text{O} \Rightarrow \text{Ca}(\text{OH})_2$

$\text{Ca}(\text{OH})_2 + \text{CO}_2 \Rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$

is made use of in cigarette filters. An electrolytic potential barrier is set up between calcium hydroxide and Mn and Fe in the electrochemical cigarette filter. This ensures superior absorption of harmful agents as nicotine, tar, colloidal smoke particles, CO_2 , etc., oxidation of CO and redn. of NO_x cpds. by catalytic action silicates, i.e. perlites and zeolites, which improve the physical and chemical attributes of the process, due to their significant absorption capacity. Hygroscopic CaO or anhydrous hydrated lime bind water and retain harmful cpds..

Lit cigarettes produce water vapour, and this converts CaO into lime, which, in turn, absorbs nicotine, tar, colloids and CO_2 , forming CaCO_3 . Lime mixed with silicates (Ca silicate) exert significant catalytic action for oxidising CO and reducing NO_x cpds..

ADVANTAGE - The superactive electrochemical cigarette-filter removes the greater pt. of all harmful substances without a significant loss of enjoyment value.

Title Terms: FILTER; CIGARETTE; CONTAIN; OXIDE; CALCIUM; MANGANESE; IRON;
ZEOLITE; PEARLITE

Derwent Class: D18; E36; J01; P15

International Patent Class (Main): A24D-003/00

File Segment: CPI; EngPI

Manual Codes (CPI/A-N): D07-D; E11-Q02; E31-H02; E31-N05B; E31-N05C;

E31-P02B; E34-B01; E34-D01; E35-U02; J01-E03C; J01-E03F; N01-D03; N06-A

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